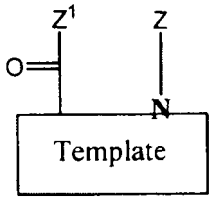
Amendments to the Claims:

This claim listing replaces all prior versions, and listings of claims in the application.

Please amend the claims as follows:

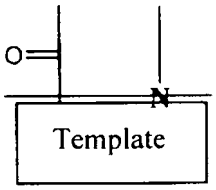
1-39. (Previously cancelled)

40. (Currently amended) ~~Compounds~~ A compound of the general formula

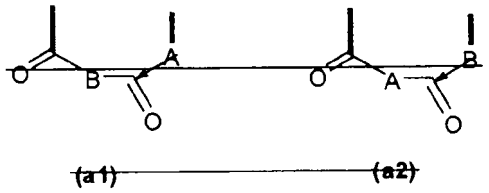


(I)

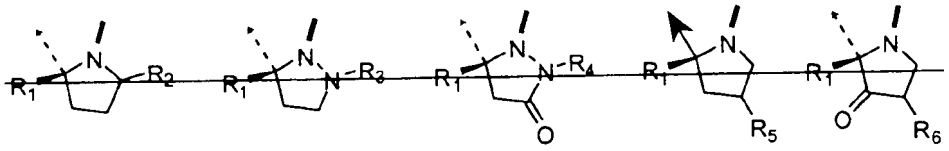
wherein the template is selected from the group consisting of ^{D}Pro-^{L}Pro and ^{L}Pro-^{D}Pro;



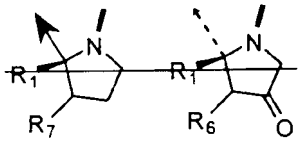
~~is a group of one of the formulae~~



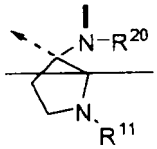
~~is a group of one of the formulae~~



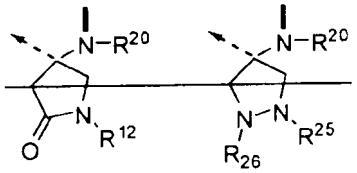
~~A5~~ ~~A6~~ ~~A7~~ ~~A8~~ ~~A9~~



~~A10~~ ~~A11~~



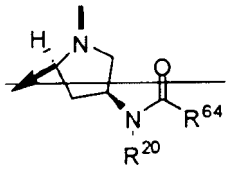
~~A79~~



~~A82~~ ~~A83~~

~~B CO is Asn; Cys; Gln; His; Met; Phe; Pro; Ser; Thr; Trp; Tyr; Sar; 4AmPhe; 3AmPhe; 2AmPhe; Phe(mC(NH_2)=NH); Phe(pC(NH_2)=NH); Phe(mNHC (NH_2)=NH); Phe(pNHC (NH_2)=NH); Phg; Cha; C_4al; C_5al; 2-Nal; 1-Nal; 4Cl-Phe; 3Cl-Phe; 2Cl-Phe; 3,4Cl_2Phe; 4F-Phe; 3F-Phe; 2F-Phe; Tic; Thi; Tza; Mso; Y(Bzl); Bip; S(Bzl); T(Bzl); hCha; hCys; hSer; hPhe; Bpa;~~

~~Pip; OctG; MePhe; MeNle; MeAla; MeIle; MeVal; or MeLeu; or B is a group, having (L) configuration, of formula~~



~~A8"~~

~~wherein R^{20} is H; or lower alkyl; and R^{64} is alkyl; alkenyl; aryl; aryl-lower alkyl; or heteroaryl-lower alkyl;~~

~~R^1 is hydrogen or lower alkyl;~~

~~R^2 is H; lower alkyl; lower alkenyl; $-(CH_2)_mOR^{55}$ (where R^{55} is lower alkyl; or lower alkenyl); $-(CH_2)_mSR^{56}$ (where R^{56} is lower alkyl; or lower alkenyl); $-(CH_2)_mNR^{33}R^{34}$ (where R^{33} is lower alkyl; or lower alkenyl; R^{34} is H; or lower alkyl; or R^{33} and R^{34} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_mOCONR^{33}R^{75}$ (where R^{33} is H; lower alkyl; or lower alkenyl; R^{75} is lower alkyl; or R^{33} and R^{75} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_mNR^{20}CONR^{33}R^{82}$ (where R^{20} is H; or lower alkyl; R^{33} is H; or lower alkyl; or lower alkenyl; R^{82} is H; or lower alkyl; or R^{33} and R^{82} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_nN(R^{20})COR^{64}$ (where: R^{20} is H; or lower alkyl; R^{64} is lower alkyl; or lower alkenyl); $-(CH_2)_nCOOR^{57}$ (where R^{57} is lower alkyl; or lower alkenyl); $-(CH_2)_nCONR^{58}R^{59}$ (where R^{58} is lower alkyl; or lower alkenyl; and R^{59} is H; or lower alkyl; or R^{58} and R^{59} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_nPO(OR^{60})_2$ (where R^{60} is lower

~~alkyl; or lower alkenyl); $(CH_2)_eSO_2R^{62}$ (where R^{62} is lower alkyl; or lower alkenyl); or $(CH_2)_qC_6H_4R^8$ (where R^8 is H; F; Cl; CF_3; lower alkyl; lower alkenyl; or lower alkoxy);~~

~~R^3 is H; lower alkyl; lower alkenyl; $(CH_2)_mOR^{55}$ (where R^{55} is lower alkyl; or lower alkenyl); $(CH_2)_mSR^{56}$ (where R^{56} is lower alkyl; or lower alkenyl); $(CH_2)_mNR^{33}R^{34}$ (where R^{33} is lower alkyl; or lower alkenyl; R^{34} is H; or lower alkyl; or R^{33} and R^{34} taken together are $(CH_2)_{2-6}$; $(CH_2)_2O(CH_2)_2$; $(CH_2)_2S(CH_2)_2$; or $(CH_2)_2NR^{57}(CH_2)_2$; where R^{57} is H; or lower alkyl); $(CH_2)_mOCONR^{33}R^{75}$ (where R^{33} is H; or lower alkyl; or lower alkenyl; R^{75} is lower alkyl; or R^{33} and R^{75} taken together are $(CH_2)_{2-6}$; $(CH_2)_2O(CH_2)_2$; $(CH_2)_2S(CH_2)_2$; or $(CH_2)_2NR^{57}(CH_2)_2$; where R^{57} is H; or lower alkyl); $(CH_2)_mNR^{20}CONR^{33}R^{82}$ (where R^{20} is H; or lower alkyl; R^{33} is H; or lower alkyl; or lower alkenyl; R^{82} is H; or lower alkyl; or R^{33} and R^{82} taken together are $(CH_2)_{2-6}$;~~

~~$(CH_2)_2O(CH_2)_2$; $(CH_2)_2S(CH_2)_2$; or $(CH_2)_2NR^{57}(CH_2)_2$; where R^{57} is H; or lower alkyl); $(CH_2)_eN(R^{20})COR^{64}$ (where R^{20} is H; or lower alkyl; R^{64} is lower alkyl; or lower alkenyl); $(CH_2)_eCOOR^{57}$ (where R^{57} is lower alkyl; or lower alkenyl); $(CH_2)_eCONR^{58}R^{59}$ (where R^{58} is lower alkyl; or lower alkenyl; and R^{59} is H; lower alkyl; or R^{58} and R^{59} taken together are $(CH_2)_{2-6}$;~~

~~$(CH_2)_2O(CH_2)_2$; $(CH_2)_2S(CH_2)_2$; or $(CH_2)_2NR^{57}(CH_2)_2$; where R^{57} is H; or lower alkyl); $(CH_2)_ePO(OR^{60})_2$ (where R^{60} is lower alkyl; or lower alkenyl); $(CH_2)_eSO_2R^{62}$ (where R^{62} is lower alkyl; or lower alkenyl); or $(CH_2)_qC_6H_4R^8$ (where R^8 is H; F; Cl; CF_3; lower alkyl; lower alkenyl; or lower alkoxy);~~

~~R^4 is H; lower alkyl; lower alkenyl; $(CH_2)_mOR^{55}$ (where R^{55} is lower alkyl; or lower alkenyl); $(CH_2)_mSR^{56}$ (where R^{56} is lower alkyl; or lower alkenyl); $(CH_2)_mNR^{33}R^{34}$ (where R^{33} is lower alkyl; or lower alkenyl; R^{34} is H; or lower alkyl; or R^{33} and R^{34} taken together are $(CH_2)_{2-6}$; $(CH_2)_2O(CH_2)_2$; $(CH_2)_2S(CH_2)_2$; or $(CH_2)_2NR^{57}(CH_2)_2$; where R^{57} is H; or lower alkyl); $(CH_2)_mOCONR^{33}R^{75}$ (where R^{33} is H; or lower alkyl; or lower alkenyl; R^{75} is lower alkyl; or R^{33} and R^{75} taken together are $(CH_2)_{2-6}$; $(CH_2)_2O(CH_2)_2$; $(CH_2)_2S(CH_2)_2$; or $(CH_2)_2NR^{57}(CH_2)_2$; where R^{57} is H; or lower alkyl); $(CH_2)_mNR^{20}CONR^{33}R^{82}$ (where R^{20} is H; or lower alkyl; R^{33} is H; or lower alkyl; or lower alkenyl; R^{82} is H; or lower alkyl; or R^{33} and R^{82} taken together are~~

~~$(CH_2)_{2-6}$~~;

~~$-(CH_2)_2O(CH_2)_2-$~~; ~~$-(CH_2)_2S(CH_2)_2-$~~; or ~~$-(CH_2)_2NR^{57}(CH_2)_2-$~~; where ~~$R^{57}$~~ is H; or lower alkyl);

~~$-(CH_2)_mN(R^{20})COR^{64}$~~ (where: ~~$R^{20}$~~ is H; or lower alkyl; ~~R^{64}~~ is lower alkyl; or lower alkenyl);

~~$-(CH_2)_eCOOR^{57}$~~ (where ~~R^{57}~~ is lower alkyl; or lower alkenyl); ~~$(CH_2)_eCONR^{58}R^{59}$~~ (where ~~R^{58}~~ is lower alkyl; or lower alkenyl; and ~~R^{59}~~ is H; or lower alkyl; or ~~R^{58}~~ and ~~R^{59}~~ taken together are ~~$(CH_2)_{2-6}$~~;

~~$-(CH_2)_2O(CH_2)_2-$~~; ~~$-(CH_2)_2S(CH_2)_2-$~~; or ~~$-(CH_2)_2NR^{57}(CH_2)_2-$~~; where ~~$R^{57}$~~: isH; or lower alkyl);

~~$-(CH_2)_ePO(OR^{60})_2$~~ (where ~~R^{60}~~ is lower alkyl; or lower alkenyl); ~~$(CH_2)_eSO_2R^{62}$~~ (where ~~R^{62}~~ is lower alkyl; or lower alkenyl); or ~~$(CH_2)_qC_6H_4R^8$~~ (where ~~R^8~~ is H; F; Cl; ~~CF_3~~; lower alkyl; lower alkenyl; or lower alkoxy);

~~R^5~~ is lower alkyl; lower alkenyl; ~~$(CH_2)_eOR^{55}$~~ (where ~~R^{55}~~ is lower alkyl; or lower alkenyl);

~~$-(CH_2)_eSR^{56}$~~ (where ~~R^{56}~~ is lower alkyl; or lower alkenyl); ~~$(CH_2)_eNR^{33}R^{34}$~~ (where ~~R^{33}~~ is lower alkyl; or lower alkenyl; ~~R^{34}~~ is H; or lower alkyl; or ~~R^{33}~~ and ~~R^{34}~~ taken together are ~~$(CH_2)_{2-6}$~~; ~~$(CH_2)_2O(CH_2)_2$~~;

~~$-(CH_2)_2S(CH_2)_2-$~~; or ~~$-(CH_2)_2NR^{57}(CH_2)_2-$~~; where ~~$R^{57}$~~ is H; or lower alkyl); ~~$(CH_2)_eOCONR^{33}R^{75}$~~ (where ~~R^{33}~~ is H; or lower alkyl; or lower alkenyl; ~~R^{75}~~ is lower alkyl; or ~~R^{33}~~ and ~~R^{75}~~ taken together are

~~$-(CH_2)_{2-6}-$~~; ~~$-(CH_2)_2O(CH_2)_2-$~~; ~~$-(CH_2)_2S(CH_2)_2-$~~; or ~~$-(CH_2)_2NR^{57}(CH_2)_2-$~~; where ~~$R^{57}$~~ is H; or lower alkyl); ~~$(CH_2)_eNR^{20}CONR^{33}R^{82}$~~ (where ~~$R^{20}$~~ is H; or lower alkyl; ~~R^{33}~~ is H; or lower alkyl; or lower alkenyl; ~~R^{82}~~ is H; or lower alkyl; or ~~R^{33}~~ and ~~R^{82}~~ taken together are ~~$(CH_2)_{2-6}$~~; ~~$(CH_2)_2O(CH_2)_2$~~;

~~$-(CH_2)_2S(CH_2)_2-$~~; or ~~$-(CH_2)_2NR^{57}(CH_2)_2-$~~; where ~~$R^{57}$~~ is H; or lower alkyl); ~~$(CH_2)_eN(R^{20})COR^{64}$~~ (where: ~~$R^{20}$~~ is H; or lower alkyl; ~~R^{64}~~ is alkyl; alkenyl; aryl; aryl lower alkyl; or heteroaryl lower alkyl); ~~$(CH_2)_eCOOR^{57}$~~ (where ~~R^{57}~~ is lower alkyl; or lower alkenyl); ~~$(CH_2)_eCONR^{58}R^{59}$~~ (where ~~R^{58}~~ is lower alkyl; or lower alkenyl; and ~~R^{59}~~ is H; or lower alkyl; or ~~R^{58}~~ and ~~R^{59}~~ taken together are ~~$(CH_2)_{2-6}$~~; ~~$(CH_2)_2O(CH_2)_2$~~; ~~$(CH_2)_2S(CH_2)_2-$~~; or ~~$-(CH_2)_2NR^{57}(CH_2)_2-$~~; where ~~$R^{57}$~~ is H; or lower alkyl);

~~$-(CH_2)_ePO(OR^{60})_2$~~ (where ~~R^{60}~~ is lower alkyl; or lower alkenyl); ~~$(CH_2)_eSO_2R^{62}$~~ (where ~~R^{62}~~ is

~~lower alkyl; or lower alkenyl); or $-(CH_2)_qC_6H_4R^8$ (where R^8 is H; F; Cl; CF_3; lower alkyl; lower alkenyl; or lower alkoxy);~~

~~R^6 is H; lower alkyl; lower alkenyl; $-(CH_2)_oOR^{55}$ (where R^{55} is lower alkyl; or lower alkenyl); $-(CH_2)_oSR^{56}$ (where R^{56} is lower alkyl; or lower alkenyl); $-(CH_2)_oNR^{33}R^{34}$ (where R^{33} is lower alkyl; or lower alkenyl; R^{34} is H; or lower alkyl; or R^{33} and R^{34} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$;~~

~~$-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_oOCONR^{33}R^{75}$ (where R^{33} is H; or lower alkyl; or lower alkenyl; R^{75} is lower alkyl; or R^{33} and R^{75} taken together are~~

~~$-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_oNR^{20}CONR^{33}R^{82}$ (where R^{20} is H; or lower alkyl; R^{33} is H; or lower alkyl; or lower alkenyl; R^{82} is H; or lower alkyl; or R^{33} and R^{82} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$;~~

~~$-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_oN(R^{20})COR^{64}$ (where R^{20} is H; or lower alkyl; R^{64} is lower alkyl; or lower alkenyl); $-(CH_2)_oCOOR^{57}$ (where R^{57} is lower alkyl; or lower alkenyl); $-(CH_2)_oCONR^{58}R^{59}$ (where R^{58} is lower alkyl; or lower alkenyl; and R^{59} is H; or lower alkyl; or R^{58} and R^{59} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or~~

~~$-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_oPO(OR^{60})_2$ (where R^{60} is lower alkyl; or lower alkenyl); $-(CH_2)_oSO_2R^{62}$ (where R^{62} is lower alkyl; or lower alkenyl); or $-(CH_2)_qC_6H_4R^8$ (where R^8 is H; F; Cl; CF_3; lower alkyl; lower alkenyl; or lower alkoxy);~~

~~R^7 is lower alkyl; lower alkenyl; $-(CH_2)_qOR^{55}$ (where R^{55} is lower alkyl; or lower alkenyl); $-(CH_2)_qSR^{56}$ (where R^{56} is lower alkyl; or lower alkenyl); $-(CH_2)_qNR^{33}R^{34}$ (where R^{33} is lower alkyl; or lower alkenyl; R^{34} is H; or lower alkyl; or R^{33} and R^{34} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$;~~

~~$-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_qOCONR^{33}R^{75}$ (where R^{33} is H; or lower alkyl; or lower alkenyl; R^{75} is lower alkyl; or R^{33} and R^{75} taken together are~~

~~$-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_qNR^{20}CONR^{33}R^{82}$ (where R^{20} is H; or lower alkyl; R^{33} is H; or lower alkyl; or lower alkenyl; R^{82} is H; or lower alkyl; or R^{33} and R^{82} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_qN(R^{20})COR^{64}$ (where: R^{20} is H; or lower alkyl; R^{64} is lower alkyl; or lower alkenyl); $-(CH_2)_rCOOR^{57}$ (where R^{57} is lower alkyl; or lower alkenyl); $-(CH_2)_qCONR^{58}R^{59}$ (where R^{58} is lower alkyl; or lower alkenyl; and R^{59} is H; or lower alkyl; or R^{58} and R^{59} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_rPO(OR^{60})_2$ (where R^{60} is lower alkyl; or lower alkenyl); $-(CH_2)_rSO_2R^{62}$ (where R^{62} is lower alkyl; or lower alkenyl); or $-(CH_2)_qC_6H_4R^8$ (where R^8 is H; F; Cl; CF_3; lower alkyl; lower alkenyl; or lower alkoxy); R^8 is H; F; Cl; CF_3; lower alkyl; lower alkenyl; $-(CH_2)_oOR^{55}$ (where R^{55} is lower alkyl; or lower alkenyl); $-(CH_2)_oSR^{56}$ (where R^{56} is lower alkyl; or lower alkenyl); $-(CH_2)_oNR^{33}R^{34}$ (where R^{33} is lower alkyl; or lower alkenyl; R^{34} is H; or lower alkyl; or R^{33} and R^{34} taken together are $-(CH_2)_{2-6}-$;

$-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_oOCONR^{33}R^{75}$ (where R^{33} is H; or lower alkyl; or lower alkenyl; R^{75} is lower alkyl; or R^{33} and R^{75} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_oNR^{20}CONR^{33}R^{82}$ (where R^{20} is H; or lower alkyl; R^{33} is H; or lower alkyl; or lower alkenyl; R^{82} is H; or lower alkyl; or R^{33} and R^{82} taken together are $-(CH_2)_{2-6}-$;

$-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_oN(R^{20})COR^{64}$ (where R^{20} is H; or lower alkyl; R^{64} is lower alkyl; or lower alkenyl); $-(CH_2)_oCOOR^{57}$ (where R^{57} is lower alkyl; or lower alkenyl); $-(CH_2)_oCONR^{58}R^{59}$ (where R^{58} is lower alkyl; or lower alkenyl; and R^{59} is H; or lower alkyl; or R^{58} and R^{59} taken together are $-(CH_2)_{2-6}-$;

$-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_oPO(OR^{60})_2$ (where R^{60} is lower alkyl; or lower alkenyl); $-(CH_2)_oSO_2R^{62}$ (where R^{62} is

~~lower alkyl; or lower alkenyl); or $-(CH_2)_qC_6H_4R^8$ (where R^8 is H; F; Cl; CF_3; lower alkyl; lower alkenyl; or lower alkoxy);~~

~~R^{11} is H; lower alkyl; lower alkenyl; $-(CH_2)_mOR^{55}$ (where R^{55} is lower alkyl; or lower alkenyl); $-(CH_2)_mSR^{56}$ (where R^{56} is lower alkyl; or lower alkenyl); $-(CH_2)_mNR^{33}R^{34}$ (where R^{33} is lower alkyl; or lower alkenyl; R^{34} is H; or lower alkyl; or R^{33} and R^{34} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_mOCONR^{33}R^{75}$ (where R^{33} is H; or lower alkyl; or lower alkenyl; R^{75} is lower alkyl; or R^{33} and R^{75} taken together ar $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_mNR^{20}CONR^{33}R^{82}$ (where R^{20} is H; or lower alkyl; R^{33} is H; or lower alkyl; or lower alkenyl; R^{82} is H; or lower alkyl; or R^{33} and R^{82} taken together are $-(CH_2)_{2-6}-$;~~

~~$-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_mN(R^{20})COR^{64}$ (where R^{20} is H; or lower alkyl; R^{64} is lower alkyl; or lower alkenyl); $-(CH_2)_eCOOR^{57}$ (where R^{57} is lower alkyl; or lower alkenyl); $-(CH_2)_eCONR^{58}R^{59}$ (where R^{58} is lower alkyl; or lower alkenyl; and R^{59} is H; lower alkyl; or R^{58} and R^{59} taken together are $-(CH_2)_{2-6}-$;~~

~~$-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_ePO(OR^{60})_2$ (where R^{60} is lower alkyl; or lower alkenyl); $-(CH_2)_eSO_2R^{62}$ (where R^{62} is lower alkyl; or lower alkenyl); or $-(CH_2)_qC_6H_4R^8$ (where R^8 is H; F; Cl; CF_3; lower alkyl; lower alkenyl; or lower alkoxy);~~

~~R^{12} is H; lower alkyl; lower alkenyl; $-(CH_2)_mOR^{55}$ (where R^{55} is lower alkyl; or lower alkenyl); $-(CH_2)_mSR^{56}$ (where R^{56} is lower alkyl; or lower alkenyl); $-(CH_2)_mNR^{33}R^{34}$ (where R^{33} is lower alkyl; or lower alkenyl; R^{34} is H; or lower alkyl; or R^{33} and R^{34} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_mOCONR^{33}R^{75}$ (where R^{33} is H; or lower alkyl; or lower alkenyl; R^{75} is lower alkyl; or R^{33} and R^{75} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_mNR^{20}CONR^{33}R^{82}$ (where R^{20} is H; or lower alkyl; R^{33} is H; or lower alkyl; or lower alkenyl; R^{82} is H; or lower alkyl; or R^{33} and R^{82} taken together are $-$~~

~~$(CH_2)_{2-6}$-;~~

~~$-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl);~~

~~$-(CH_2)_mN(R^{20})COR^{64}$ (where: R^{20} is H; or lower alkyl; R^{64} is lower alkyl; or lower alkenyl);~~

~~$-(CH_2)_rCOOR^{57}$ (where R^{57} is lower alkyl; or lower alkenyl); $-(CH_2)_rCONR^{58}R^{59}$ (where R^{58} is lower alkyl; or lower alkenyl; and R^{59} is H; or lower alkyl; or R^{58} and R^{59} taken together are $-(CH_2)_{2-6}-$;~~

~~$-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl);~~

~~$-(CH_2)_rPO(OR^{60})_2$ (where R^{60} is lower alkyl; or lower alkenyl); $-(CH_2)_qSO_2R^{62}$ (where R^{62} is lower alkyl; or lower alkenyl); or $-(CH_2)_qC_6H_4R^8$ (where R^8 is H; F; Cl; CF_3; lower alkyl; lower alkenyl; or lower alkoxy);~~

~~R^{20} is H; or lower alkyl;~~

~~R^{25} is H; lower alkyl; lower alkenyl; $-(CH_2)_mOR^{55}$ (where R^{55} is lower alkyl; or lower alkenyl); $-(CH_2)_mNR^{33}R^{34}$ (where R^{33} is lower alkyl; or lower alkenyl; R^{34} is H; or lower alkyl; or R^{33} and R^{34} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_mOCONR^{33}R^{75}$ (where R^{33} is H; or lower alkyl; or lower alkenyl; R^{75} is lower alkyl; or R^{33} and R^{75} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or~~

~~$-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_mNR^{20}CONR^{33}R^{82}$ (where R^{20} is H; or lower alkyl; R^{33} is H; or lower alkyl; or lower alkenyl; R^{82} is H; or lower alkyl; or R^{33} and R^{82} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_mN(R^{20})COR^{64}$ (where: R^{20} is H; or lower alkyl; R^{64} is lower alkyl; or lower alkenyl); $-(CH_2)_qCOOR^{57}$ (where R^{57} is lower alkyl; or lower alkenyl); $-(CH_2)_qCONR^{58}R^{59}$ (where R^{58} is lower alkyl; or lower alkenyl; and R^{59} is H; lower alkyl; or R^{58} and R^{59} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl);~~

~~$-(CH_2)_qPO(OR^{60})_2$ (where R^{60} is lower alkyl; or lower alkenyl); $-(CH_2)_qSO_2R^{62}$ (where R^{62} is lower alkyl; or lower alkenyl); or $-(CH_2)_qC_6H_4R^8$ (where R^8 is H; F; Cl; CF_3; lower alkyl; lower alkenyl; or lower alkoxy);~~

~~R^{26} is H; lower alkyl; lower alkenyl; $-(CH_2)_mOR^{55}$ (where R^{55} is lower alkyl; or lower alkenyl); $-(CH_2)_mNR^{33}R^{34}$ (where R^{33} is lower alkyl; or lower alkenyl; R^{34} is H; or lower alkyl; or R^{33} and R^{34} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_mOCONR^{33}R^{75}$ (where R^{33} is H; or lower alkyl; or lower alkenyl; R^{75} is lower alkyl; or R^{33} and R^{75} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_mNR^{20}CONR^{33}R^{82}$ (where R^{20} is H; or lower alkyl; R^{33} is H; or lower alkyl; or lower alkenyl; R^{82} is H; or lower alkyl; or R^{33} and R^{82} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl); $-(CH_2)_mN(R^{20})COR^{64}$ (where: R^{20} is H; or lower alkyl; R^{64} is lower alkyl; or lower alkenyl); $-(CH_2)_oCOOR^{57}$ (where R^{57} is lower alkyl; or lower alkenyl); $-(CH_2)_oCONR^{58}R^{59}$ (where R^{58} is lower alkyl; or lower alkenyl; and R^{59} is H; lower alkyl; or R^{58} and R^{59} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{57}(CH_2)_2-$; where R^{57} is H; or lower alkyl);
$-(CH_2)_oPO(OR^{60})_2$ (where R^{60} is lower alkyl; or lower alkenyl); $-(CH_2)_oSO_2R^{62}$ (where R^{62} is lower alkyl; or lower alkenyl); or $-(CH_2)_qC_6H_4R^8$ (where R^8 is H; F; Cl; CF_3; lower alkyl; lower alkenyl; or lower alkoxy); or, alternatively, R^{25} and R^{26} taken together are $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$;
$-(CH_2)_2S(CH_2)_2-$; or $-(CH_2)_2NR^{34}(CH_2)_2-$;
R^{33} is H; alkyl, alkenyl; $-(CH_2)_m(CHR^{61})_sOR^{55}$; $-(CH_2)_m(CHR^{61})_sNR^{34}R^{63}$;
$-(CH_2)_m(CHR^{61})_sOCONR^{75}R^{82}$; $-(CH_2)_m(CHR^{61})_sNR^{20}CONR^{78}R^{82}$;
$-(CH_2)_o(CHR^{61})_sCOR^{64}$; $-(CH_2)_o(CHR^{61})_s-CONR^{58}R^{59}$; $-(CH_2)_o(CHR^{61})_sPO(OR^{60})_2$;
$-(CH_2)_o(CHR^{61})_s-SO_2R^{62}$; or $-(CH_2)_o(CHR^{61})_sC_6H_4R^8$;
R^{34} is H; lower alkyl; aryl, or aryl-lower alkyl;
R^{33} and R^{34} taken together can form: $-(CH_2)_{2-6}-$; $-(CH_2)_2O(CH_2)_2-$; $-(CH_2)_2S(CH_2)_2-$; or
$-(CH_2)_2NR^{57}(CH_2)_2-$;
R^{50} is H; lower alkyl; or aryl-lower alkyl;
R^{57} is H; lower alkyl; lower alkenyl; aryl lower alkyl; or heteroaryl lower alkyl;~~

~~R^{58} is H; lower alkyl; lower alkenyl; aryl; heteroaryl; aryl-lower alkyl; or heteroaryl-lower alkyl;~~

~~R^{59} is H; lower alkyl; lower alkenyl; aryl; heteroaryl; aryl-lower alkyl; or heteroaryl-lower alkyl; or~~

~~R^{58} and R^{59} taken together can form: $(CH_2)_{2-6}$; $(CH_2)_2O(CH_2)_2$; $(CH_2)_2S(CH_2)_2$; or $(CH_2)_2NR^{57}(CH_2)_2$;~~

~~R^{60} is H; lower alkyl; lower alkenyl; aryl; or aryl-lower alkyl;~~

~~R^{61} is alkyl; alkenyl; aryl; heteroaryl; aryl-lower alkyl; heteroaryl-lower alkyl; $(CH_2)_mOR^{55}$; $(CH_2)_mNR^{33}R^{34}$; $(CH_2)_mOCONR^{75}R^{82}$; $(CH_2)_mNR^{20}CONR^{78}R^{82}$; $(CH_2)_oCOOR^{37}$; $(CH_2)_oNR^{58}R^{59}$; or $(CH_2)_oPO(COR^{60})_2$;~~

~~R^{62} is lower alkyl; lower alkenyl; aryl, heteroaryl; or aryl-lower alkyl;~~

~~R^{64} is H; lower alkyl; lower alkenyl; aryl; heteroaryl; aryl-lower alkyl; heteroaryl-lower alkyl; $(CH_2)_p(CHR^{61})_sOR^{65}$; $(CH_2)_p(CHR^{61})_sSR^{66}$; or $(CH_2)_p(CHR^{61})_sNR^{34}R^{63}$; $(CH_2)_p(CHR^{61})_sOCONR^{75}R^{82}$; $(CH_2)_p(CHR^{61})_sNR^{20}CONR^{78}R^{82}$;~~

Z and Z^1 are chains of n and, respectively, n' α-amino acid residues whereby either n is 4 and n' is 6 or n is 5 and n' is 7, the positions of said amino acid residues in said chain Z being counted ~~starting~~ from the N-terminal amino acid and the positions of said amino acid residues in ~~said~~ chain Z^1 being counted ~~starting~~ from the C-terminal amino acid, whereby these amino acid residues are~~, depending on their position in the chains, Gly, or Pro, or of one of the types~~

~~C: $NR^{20}CH(R^{72})CO$;~~

~~D: $NR^{20}CH(R^{73})CO$;~~

~~E: $NR^{20}CH(R^{74})CO$;~~

~~F: $NR^{20}CH(R^{84})CO$; and~~

~~H: NR^{20}-CH(CO-)-$(CH_2)_{4-7}$-CH(CO-)-NR^{20};~~

~~NR^{20}-CH(CO-)-$(CH_2)_pSS(CH_2)_p$-CH(CO-)-NR^{20};~~

~~NR^{20}-CH(CO-)-(-$(CH_2)_pNR^{20}CO(CH_2)_p$-CH(CO-)-$NR^{20}$;~~

~~NR^{20}-CH(CO-)-(-$(CH_2)_pNR^{20}CONR^{20}(CH_2)_p$-CH(CO-)-$NR^{20}$; and~~

~~l: $NR^{86}CH_2CO$;~~

~~R^{72} is H, lower alkyl; lower alkenyl; $(CH_2)_p(CHR^{61})_sOR^{85}$; or $(CH_2)_p(CHR^{61})_sSR^{85}$;~~

~~R^{73} is $(CH_2)_eR^{77}$; $(CH_2)_rO(CH_2)_eR^{77}$; $(CH_2)_rS(CH_2)_eR^{77}$; or $(CH_2)_rNR^{20}(CH_2)_eR^{77}$;~~

~~R^{74} is $(CH_2)_pNR^{78}R^{79}$; $(CH_2)_pNR^{77}R^{80}$; $(CH_2)_pC(=NR^{80})NR^{78}R^{79}$;~~
~~$(CH_2)_pC(=NOR^{50})NR^{78}R^{79}$;~~
~~$(CH_2)_pC(=NNR^{78}R^{79})NR^{78}R^{79}$; $(CH_2)_pNR^{80}C(=NR^{80})NR^{78}R^{79}$;~~
~~$(CH_2)_pN=C(NR^{78}R^{80})NR^{79}R^{80}$; $(CH_2)_pC_6H_4NR^{78}R^{79}$; $(CH_2)_pC_6H_4NR^{77}R^{80}$;~~
~~$(CH_2)_pC_6H_4C(=NR^{80})NR^{78}R^{79}$; $(CH_2)_pC_6H_4C(=NOR^{50})NR^{78}R^{79}$;~~
~~$(CH_2)_pC_6H_4C(=NNR^{78}R^{79})NR^{78}R^{79}$; $(CH_2)_pC_6H_4NR^{80}C(=NR^{80})NR^{78}R^{79}$;~~
~~$(CH_2)_pC_6H_4N=C(NR^{78}R^{80})NR^{79}R^{80}$; $(CH_2)_rO(CH_2)_mNR^{78}R^{79}$; $(CH_2)_rO(CH_2)_mNR^{77}R^{80}$;~~
~~$(CH_2)_rO(CH_2)_pC(=NR^{80})NR^{78}R^{79}$; $(CH_2)_rO(CH_2)_pC(=NOR^{50})NR^{78}R^{79}$;~~
~~$(CH_2)_rO(CH_2)_pC(=NNR^{78}R^{79})NR^{78}R^{79}$; $(CH_2)_rO(CH_2)_mNR^{80}C(=NR^{80})NR^{78}R^{79}$;~~
~~$(CH_2)_rO(CH_2)_mN=C(NR^{78}R^{80})NR^{79}R^{80}$; $(CH_2)_rO(CH_2)_pC_6H_4CNR^{78}R^{79}$;~~
~~$(CH_2)_rO(CH_2)_pC_6H_4C(=NR^{80})NR^{78}R^{79}$; $(CH_2)_rO(CH_2)_pC_6H_4C(=NOR^{50})NR^{78}R^{79}$;~~
~~$(CH_2)_rO(CH_2)_pC_6H_4C(=NNR^{78}R^{79})NR^{78}R^{79}$;~~
~~$(CH_2)_rO(CH_2)_pC_6H_4NR^{80}C(=NR^{80})NR^{78}R^{79}$; $(CH_2)_rS(CH_2)_mNR^{78}R^{79}$;~~
~~$(CH_2)_rS(CH_2)_mNR^{77}R^{80}$; $(CH_2)_rS(CH_2)_pC(=NR^{80})NR^{78}R^{79}$;~~
~~$(CH_2)_rS(CH_2)_pC(=NOR^{50})NR^{78}R^{79}$; $(CH_2)_rS(CH_2)_pC(=NNR^{78}R^{79})NR^{78}R^{79}$;~~
~~$(CH_2)_rS(CH_2)_mNR^{80}C(=NR^{80})NR^{78}R^{79}$; $(CH_2)_rS(CH_2)_mN=C(NR^{78}R^{80})NR^{79}R^{80}$;~~
~~$(CH_2)_rS(CH_2)_pC_6H_4CNR^{78}R^{79}$; $(CH_2)_rS(CH_2)_pC_6H_4C(=NR^{80})NR^{78}R^{79}$;~~
~~$(CH_2)_rS(CH_2)_pC_6H_4C(=NOR^{50})NR^{78}R^{79}$; $(CH_2)_rS(CH_2)_pC_6H_4C(=NNR^{78}R^{79})NR^{78}R^{79}$;~~
~~$(CH_2)_rS(CH_2)_pC_6H_4NR^{80}C(=NR^{80})NR^{78}R^{79}$; $(CH_2)_pNR^{80}COR^{64}$; $(CH_2)_pNR^{80}COR^{77}$;~~
~~$(CH_2)_pNR^{80}CONR^{78}R^{79}$; or $(CH_2)_pC_6H_4NR^{80}CONR^{78}R^{79}$;~~

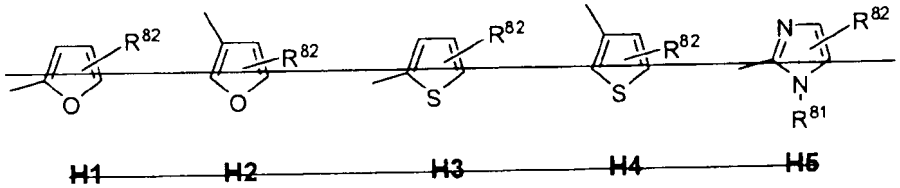
~~R^{75} is lower alkyl; lower alkenyl; or aryl lower alkyl;~~

~~R^{33} and R^{75} taken together can form: $(CH_2)_{2-6}$; $(CH_2)_2O(CH_2)_2$; $(CH_2)_2S(CH_2)_2$; or~~
~~$(CH_2)_2NR^{57}(CH_2)_2$;~~

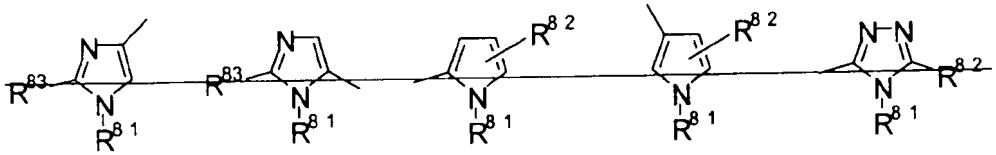
~~R^{75} and R^{82} taken together can form: $(CH_2)_{2-6}$; $(CH_2)_2O(CH_2)_2$; $(CH_2)_2S(CH_2)_2$; or~~
~~$(CH_2)_2NR^{57}(CH_2)_2$;~~

~~R^{76} is H; lower alkyl; lower alkenyl; aryl lower alkyl; $(CH_2)_eOR^{72}$; $(CH_2)_eSR^{72}$; $(CH_2)_eNR^{33}R^{34}$; $(CH_2)_eOCONR^{33}R^{75}$; $(CH_2)_eNR^{20}CONR^{33}R^{82}$; $(CH_2)_eCOOR^{75}$; $(CH_2)_eCONR^{58}R^{59}$; $(CH_2)_ePO(OR^{60})_2$; $(CH_2)_pSO_2R^{62}$; or $(CH_2)_eCOR^{64}$;~~

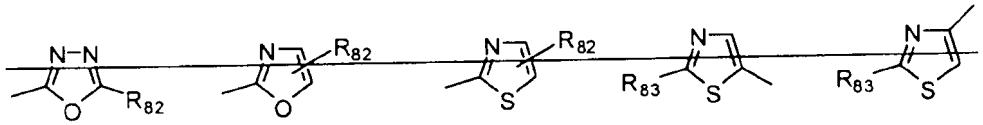
~~R^{77} is R^{87}; or a heteroaryl group of one of the formulae~~



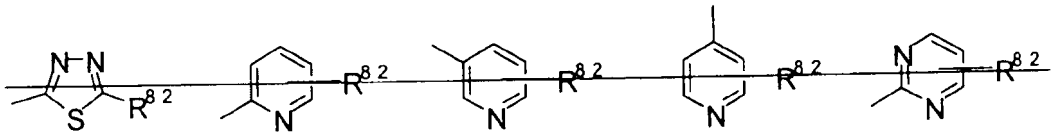
~~H1~~ ~~H2~~ ~~H3~~ ~~H4~~ ~~H5~~



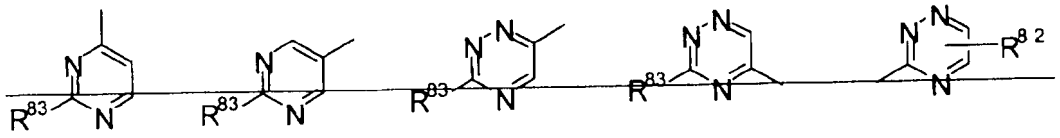
~~H6~~ ~~H7~~ ~~H8~~ ~~H9~~ ~~H10~~

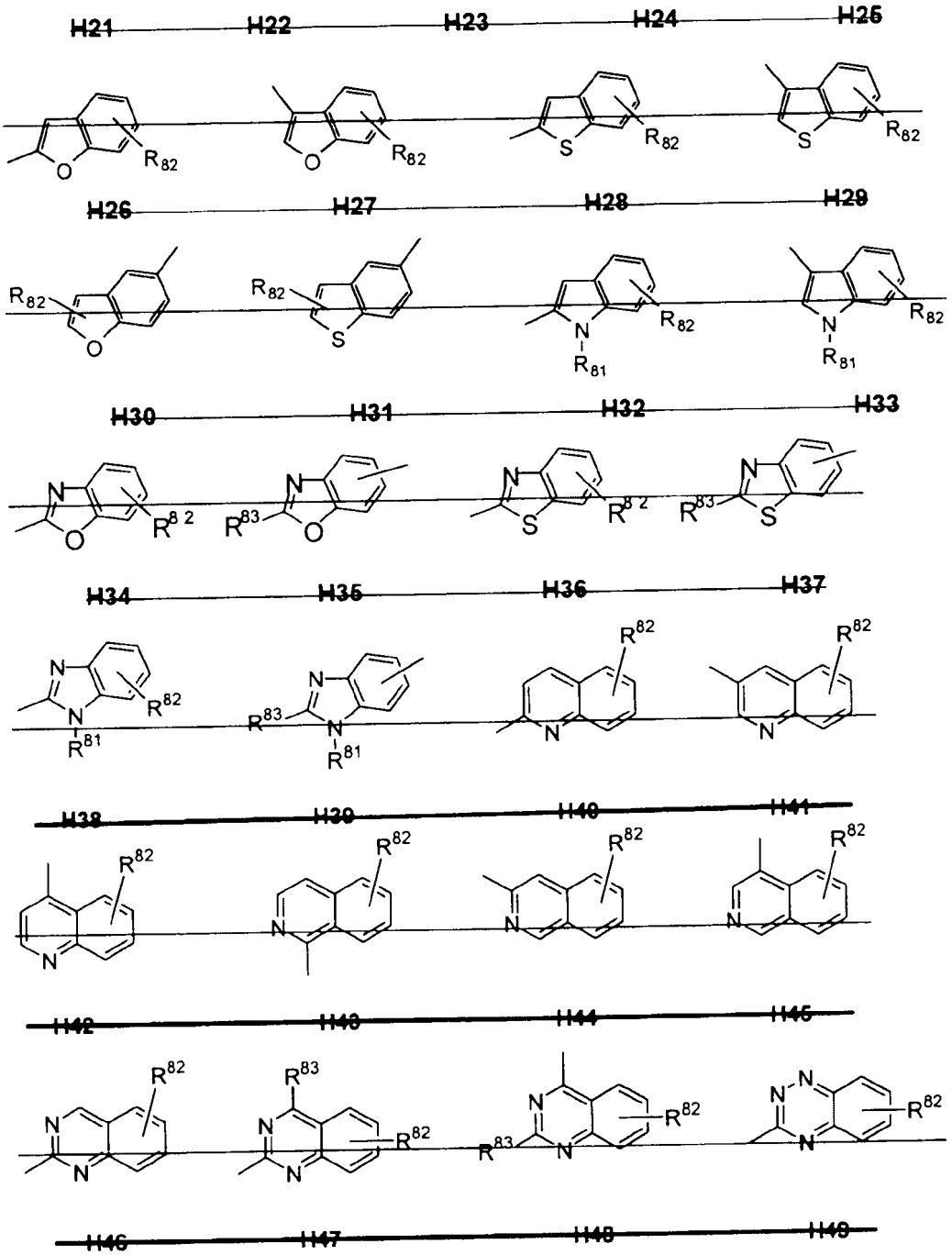


~~H11~~ ~~H12~~ ~~H13~~ ~~H14~~ ~~H15~~



~~H16~~ ~~H17~~ ~~H18~~ ~~H19~~ ~~H20~~

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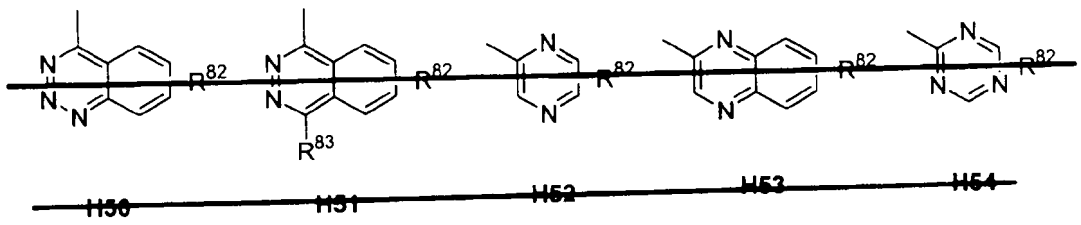


~~R^{78} is H; lower alkyl; aryl; or aryl-lower alkyl;~~

~~R^{78} and R^{82} taken together can form: $(CH_2)_{2-6}$; $(CH_2)_2O(CH_2)_2$; $(CH_2)_2S(CH_2)_2$; or $(CH_2)_2NR^{57}(CH_2)_2$;~~

~~R^{79} is H; lower alkyl; aryl; or aryl-lower alkyl; or~~

~~R^{78} and R^{79}, taken together, can be $(CH_2)_{2-7}$; $(CH_2)_2O(CH_2)_2$; or $(CH_2)_2NR^{57}(CH_2)_2$;~~

~~R^{80} is H; or lower alkyl;~~

~~R^{81} is H; lower alkyl; or aryl-lower alkyl;~~

~~R^{82} is H; lower alkyl; aryl; heteroaryl; or aryl-lower alkyl;~~

~~R^{83} and R^{82} taken together can form: $(CH_2)_{2-6}$; $(CH_2)_2O(CH_2)_2$; $(CH_2)_2S(CH_2)_2$; or $(CH_2)_2NR^{57}(CH_2)_2$;~~

~~R^{83} is H; lower alkyl; aryl; or $NR^{78}R^{79}$;~~

~~R^{84} is $(CH_2)_pCONR^{78}R^{79}$; $(CH_2)_pNR^{80}CONR^{78}R^{79}$; $(CH_2)_pC_6H_4CONR^{78}R^{79}$; or $(CH_2)_pC_6H_4NR^{80}CONR^{78}R^{79}$;~~

~~R^{85} is lower alkyl; or lower alkenyl;~~

~~R^{86} is R^{74}; $[(CH_2)_u-X]_t-(CH_2)_vNR^{78}R^{79}$; $[(CH_2)_u-X]_t-(CH_2)_v-C(=NR^{80})NR^{78}R^{79}$; X is O, NR^{20}, S, OCOO, u is 1-3, t is 1-6, v is 1-3;~~

~~R^{87} is phenyl, p-hydroxyphenyl, 2-naphthyl, 1-naphthyl, 4-chlorophenyl, 3-chlorophenyl, 2-chlorophenyl, 3,4-dichlorophenyl, 4-fluorophenyl, 3-fluorophenyl, 2-fluorophenyl, p-benzyloxyphenyl, p-biphenyl or p-benzoylphenyl.~~

~~with the proviso that in said chains Z and Z^1 of n and , respectively, n' α-amino acid residues~~

- if n is 4 and n' is 6~~,~~ the amino acid residues in positions 1 to 4 of the chain Z and in positions 1' to 6' ~~of~~ in chain Z^1 are:

  - P1: ~~of type C or of type D or of type E or of type F, or the residue is Pro~~ Tyr or Arg;
  - P2: ~~of type E or of type F~~ L-citrulline (Cit) or Arg;
  - P3: ~~of type F, or the residue is Pro~~ Cys;
  - P4: ~~of type E~~ Arg-NH_2;

  - P1': ~~of type C or of type D or of type E or of type F, or the residue is Gly~~ Lys or Arg;
  - P2': ~~of type D or of type C~~ Tyr;
  - P3': ~~of type F or the residue is Pro~~ Cys;
  - P4': ~~of type D or of type C~~ L-2-naphthylalanine (2-Nal);
  - P5': ~~of type E, or of type F or the residue is Pro~~ Arg; and
  - P6': ~~of type E or of type F, or the residue is Pro~~ Arg; or

  - Cys at P3 and P3'~~, taken together,~~ can form a ~~group of type H~~ disulfide bridge;

and

- if n is 5 and n' is 7, the amino acid residues in positions 1 to 5 ~~of~~ in chain Z and in positions 1' to 7' ~~of~~ in chain Z^1 are:

  - P1: ~~of type C or of type D or of type E or of type F, or the residue is Pro~~ Tyr;
  - P2: ~~of type E or of type F~~ Arg;
  - P3: ~~of type F, or the residue is Pro~~ Cit;
  - P4: ~~of type F~~ Cys;

- P5: ~~of type E~~ Arg or Arg-NH_2

- P1': ~~of type C or of type D or of type E or of type F, or the residue is Pro~~ Lys;
- P2': ~~of type F~~ Cit;
- P3': ~~of type D or the residue is Pro~~ Tyr;
- P4': ~~of type E or of type F~~ Cys;
- P5': ~~of type D, or the residue is Pro~~ 2-Nal, Trp, L-para-aminophenylalanine (F(pNH_2)) or L-6-Cl-Tryptophan (W(6-Cl));
- P6': ~~of type E or of type F, or the residue is Pro~~ Arg; ~~and~~
- P7': ~~of type E or of type I, or the residue is Gly~~ ^{D}Arg, Arg, Ac-Arg, iPr-Arg N-(2-aminoethyl)glycine ((EA)G), N-(3-aminopropyl)glycine ((PrA)G), N-(4-amino-n-butyl)glycine ((BA)G), N-(2-guanidinoethyl)glycine ((EGU)G), N-(3-guanidino-n-propyl)glycine ((PrGU)G), or N-(4-guanidino-n-butyl)glycine ((BGU)G); ~~or~~

Cys at P4 and P4' can form a disulfide bridge

~~P2 and P2' and/or P4 and P4', taken together, can form a group of type H;~~

~~at P7' also D-isomers being possible,~~

and an enantiomer thereof and pharmaceutically acceptable salts thereof.

41-46. (Previously cancelled)

47-49. (Cancelled)

50. (Currently amended) ~~Compounds~~ The compound according to claim ~~48~~ 40, wherein the α-amino acid residues in positions 1 to 4 of the chain Z and the α-amino acid residues in positions 1' to 6' chain Z^1 are:

- P1: Tyr, or Arg;
- P2: Cit, or Arg;
- P3: Cys;
- P4: Arg-NH_2;
- P1': Lys, orArg;
- P2': Tyr;
- P3': Cys;
- P4': 2-Nal;
- P5': Arg;
- P6': Arg; and

Cys at P3 and P3' can form a disulfide bridge.

51. (Currently amended) ~~Compounds~~ The compound according to claim ~~49~~ 40, wherein the α-amino acid residues in positions 1 to 5 of the chain Z and the α-amino acid residues in positions 1' to 7' chain Z^1 are:

- P1: Tyr;
- P2: Arg;
- P3: Cit;
- P4: Cys;
- P5: Arg, or Arg-NH_2;
- P1': Lys;
- P2': Cit;
- P3': Tyr;
- P4': Cys;
- P5': 2-Nal, Trp, F(pNH_2), or W(6-Cl);
- P6': Arg;
- P7`: ^{D}Arg, Arg, Ac-Arg, iPr-Arg, (EA)G, (PrA)G, (BA)G, (EGU)G, (PrGU)G, or (BGU)G; and

Cys at P4 and P4' can form a disulfide bridge.

52. (Currently amended) ~~A~~ The compound of formula I according to claim 40, wherein the template is ^{D}Pro-^{L}Pro, n is 5, n' is 7 and the amino acid residues in positions 1 to 5 of the chain Z and the amino acid residues in positions 1' to 7' chain Z^1 are:

- P1: Tyr;
- P2: Arg;
- P3: Cit;
- P4: Cys;
- P5: Arg-NH_2;
- P1': Lys;
- P2': Cit;
- P3': Tyr;
- P4': Cys;
- P5': 2-Nal;
- P6': Arg; and
- P7': Arg; and

Cys at P4' and P4 forming a disulfide bridge.

53. (Currently amended) ~~A~~ The compound of formula I according to claim 40, wherein the template is ^{D}Pro-^{L}Pro, n is 5, n' is 7 and the amino acid residues in positions 1 to 5 of the chain Z and the amino acid residues in positions 1' to 7' chain Z^1 are:

- P1: Tyr;
- P2: Arg;
- P3: Cit;
- P4: Cys;
- P5: Arg-NH_2;
- P1': Lys;

- P2': Cit;
- P3': Tyr;
- P4': Cys;
- P5': 2-Nal;
- P6': Arg; and
- P7': Ac-Arg; and

Cys at P4' and P4 forming a disulfide bridge.

54. (Currently amended) ~~A~~ The compound of formula I according to claim 40, wherein the template is ^{D}Pro-^{L}Pro, n is 5, n' is 7 and the amino acid residues in positions 1 to 5 of the chain Z and the amino acid residues in positions 1' to 7' chain Z^{1} are:

- P1: Tyr;
- P2: Arg;
- P3: Cit;
- P4: Cys;
- P5: Arg-NH_2;
- P1': Lys;
- P2': Cit;
- P3': Tyr;
- P4': Cys;
- P5': 2-Nal
- P6': Arg; and
- P7': ^{D}Arg; and

Cys at P4' and P4 forming a disulfide bridge.

55. (Currently amended) ~~A~~ The compound of formula I according to claim 40, wherein the template is ^{D}Pro-^{L}Pro, n is 5, n' is 7 and the amino acid residues in positions 1 to 5 of the chain Z and the amino acid residues in positions 1' to 7' chain Z^{1} are:

- P1: Tyr;
- P2: Arg;
- P3: Cit;
- P4: Cys;
- P5: Arg-NH_2;
- P1': Lys;
- P2': Cit;
- P3': Tyr;
- P4': Cys;
- P5': Phe(pNH_2);
- P6': Arg; and
- P7': Arg; and

Cys at P4' and P4 forming a disulfide bridge.

56. (Currently amended) ~~A~~ The compound of formula I according to claim 40, wherein the template is ^{D}Pro-^{L}Pro, n is 5, n' is 7 and the amino acid residues in positions 1 to 5 of the chain Z and the amino acid residues in positions 1' to 7' chain Z^1 are:

- P1: Tyr;
- P2: Arg;
- P3: Cit;
- P4: Cys;
- P5: Arg-NH_2;
- P1': Lys;
- P2': Cit;
- P3': Tyr;
- P4': Cys;
- P5': 2-Nal;
- P6': Arg; and

- P7': (PrA)G; and

Cys at P4' and P4 forming a disulfide bridge.

57. (Currently amended) ~~A~~ The compound of formula I according to claim 40, wherein the template is ^{D}Pro-^{L}Pro, n is 5, n' is 7 and the amino acid residues in positions 1 to 5 of the chain Z and the amino acid residues in positions 1' to 7' chain Z^{1} are:

- P1: Tyr;
- P2: Arg;
- P3: Cit;
- P4: Cys;
- P5: Arg;
- P1': Lys;
- P2': Cit;
- P3': Tyr;
- P4': Cys;
- P5': 2-Nal;
- P6': Arg; and
- P7': Arg; and

Cys at P4' and P4 forming a disulfide bridge.

58. (Currently amended) Enantiomers of the compounds of formulae I as defined in claim 40.

59.-60. (Cancelled)

61. (Previously presented) A pharmaceutical composition containing a compound according to claim 40 and a pharmaceutically inert carrier.

62. (Currently amended) ~~Compositions~~ A composition according to claim 61 in a form suitable for a mode of administration selected from the group consisting of oral, topical, transdermal, injection, buccal, transmucosal, pulmonary and inhalation.

63. (Currently amended) ~~Compositions~~ A composition according to claim 61 in a form selected from the group consisting of tablets, dragees, capsules, solutions, liquids, gels, plaster, creams, ointments, syrup, slurries, suspensions, spray, nebuliser or suppositories.

64. (Currently amended) ~~Compositions~~ A composition according to claim 62 in a form selected from the group consisting of tablets, dragees, capsules, solutions, liquids, gels, plaster, creams, ointments, syrup, slurries, suspensions, spray, nebuliser or suppositories.

65. (Currently amended) A method for treating ~~and/or preventing~~ a disorder ~~selected from the group consisting of HIV infections, cancer and inflammatory disorders, the method comprising~~ mediated by or resulting from CXCR4 activity which comprises:

administering to a subject in need ~~thereof~~ of such treatment an effective amount of a compound according to claim 40.

66. (Currently amended) A process for the manufacture of compounds according to claim 40, which process comprises

(a) coupling an appropriately functionalized solid support with an appropriately N-protected derivative of that amino acid which in the desired end-product is in position 4 of Z if n is 4 or in position 5 of Z if n is 5~~, any functional group which may be present in said N-protected amino acid derivative being likewise appropriately protected~~;

(b) removing the N-protecting group from the product thus obtained;

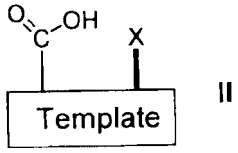
(c) coupling the product thus obtained with an appropriately N-protected derivative of that amino acid which in Z of the desired end-product is one position nearer the N-terminal amino

acid residue~~, any functional group which may be present in said N-protected amino acid derivative being likewise appropriately protected~~;

(d) removing the N-protecting group from the product thus obtained;

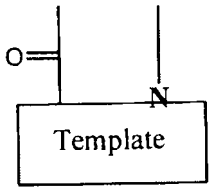
(e) repeating steps (c) and (d) until the N-terminal amino acid residue of Z has been introduced;

(f) coupling the product thus obtained with a compound of the general formula



II

wherein



is as defined in claim 40 and X is an N-protecting group; or, alternatively,

(fa) coupling the product obtained in step (e) with an appropriately N-protected derivative of ~~an amino acid of the general formula~~

~~HOOC-B-H III or HOOC-A-H IV~~

~~wherein B and A are as defined in claim 40~~ <u>^{L}Pro or ^{D}Pro</u>, any functional group which may be present in said N-protected amino acid derivative being likewise appropriately protected;

(fb) removing the N-protecting group from the product thus obtained; and

(fc) coupling the product thus obtained with an appropriately N-protected derivative of ~~an amino acid of the above general formula IV and, respectively, III~~ <u>^{D}Pro and, respectively, ^{L}Pro</u>, any functional group which may be present in said N-protected amino acid derivative being likewise appropriately protected;

(g) removing the N-protecting group from the product obtained in step (f) or (fc);

(h) coupling the product thus obtained with an appropriately N-protected derivative of that amino acid which in the desired end-product is in position 1 of Z^1, any functional group which may be present in said N-protected amino acid derivative being likewise appropriately protected;

(i) removing the N-protecting group from the product thus obtained;

(j) coupling the product thus obtained with an appropriately N-protected derivative of that amino acid which in the desired end-product is one position farther away from position 1 of Z^1, any functional group which may be present in said N-protected amino acid derivative being likewise appropriately protected;

(k) removing the N-protecting group from the product thus obtained;

(l) repeating steps (j) and (k) until all amino acid residues of Z^1 have been introduced;

(m) if desired, selectively deprotecting one or several protected functional group(s) present in the molecule and appropriately substituting the reactive group(s) thus liberated;

(n) if desired, forming one or two interstrand linkage(s) between side-chains of appropriate amino acid residues at opposite positions of the β-strand region;

(o) detaching the product thus obtained from the solid support and removing any protecting groups present on functional groups of any members of the chain of amino acid residues and, if desired, any protecting group(s) which may in addition be present in the molecule; and

(p) if desired, converting the product thus obtained into a pharmaceutically acceptable salt or converting a pharmaceutically acceptable, or unacceptable, salt thus obtained into the corresponding free compound of formula I or into a different, pharmaceutically acceptable, salt.

67. (Currently amended) A process according to claim 66, but wherein ~~an amino acid residue of type I~~ a residue of glycine having the amino group substituted by a chain having a polar-cationic residue is introduced by coupling with a leaving group-containing ~~acetylating~~ acylating agent, followed by nucleophilic displacement with an amine ~~of the formula H_2NR^{86}~~ having the amino group substituted by a chain having a polar-cationic residue which, if necessary, is appropriately protected.

68. (Currently amended) A process according to claim 67 wherein the leaving group in said leaving group-containing ~~acetylating~~ acylating agent is bromo, chloro or iodo acetic acid.

69. (Currently amended) A modification of the process according to claim 66 for the manufacture of compounds according to claim ~~56~~ 58 in which enantiomers of all chiral starting materials are used.

70. (Currently amended) A modification of the process according to claim 67 for the manufacture of compounds according to claim ~~56~~ 58 in which enantiomers of all chiral starting materials are used.